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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/443,793	11/18/1999	DAVID E. ALBRECHT	505-02	7726

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EXAMINER

PICKARD, ALISON K

ART UNIT	PAPER NUMBER
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3676

DATE MAILED: 11/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/443,793

Applicant(s)

ALBRECHT, DAVID E.

Examiner

Alison K. Pickard

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 28-35 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 28-30 and 32-34 is/are rejected.
- 7) ☒ Claim(s) 31 and 35 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 28-30 and 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith in view of Jones (2,278,721).

Smith discloses a one-piece plate 31 having an interior opening and a boundary. A one-piece seal 36 is disposed within the boundary. A support ring 22 is disposed within the seal. The seal is a flexible O-ring. The ring 22 is metal and is non-threaded. The ring has an outer boundary with two chamfers 24. A fluid component abuts the plate. The plate also has a pair of surfaces, which are parallel to each other (i.e. the surfaces parallel to the flange surfaces of 13). Smith does not disclose that the support ring has at least one orifice providing fluid connection between the opening and the seal. Jones teaches a seal between two port faces. The seal comprises a support ring 38 disposed within a seal 46. Jones teaches using an orifice 39 to provide a fluid connection between the opening and the seal to ensure a fluid tight seal. The orifice allows fluid pressure to press the seal upward, outward, and downward into fluid sealing abutment with the surfaces of the joint (see page 2, line 73 through page 3, line 10). (Note: the seal of Jones is oriented between two surfaces similar to those of Smith. The orifices of Jones are arranged generally parallel to these surfaces and would be arranged parallel to the surfaces of Smith.) Therefore, it would have been obvious for one of ordinary skill in the art at the time the

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invention was made to modify the support ring of Smith with the orifices taught by Jones so that fluid pressure within the opening is communicated to the seal to force it into fluid tight sealing engagement and prevent leakage through the joint.

Allowable Subject Matter

3. Claims 31 and 35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record, taken as a whole, does not disclose the combination of limitations required by the claims. Specifically, the prior art fails to disclose or teach two chamfers on an outer portion of a support ring making an angle of about 45 degrees with the axis. Further, there does not appear to be any motivation, absent Applicant's own disclosure, to modify the prior art in the manner required by the claims.

Response to Arguments

5. Applicant's arguments filed 7-30-03 have been fully considered but they are not persuasive and are considered moot in view of the new grounds for rejection.

It is well known in the art to use a connection between an opening and seal so that fluid pressure within the opening can force the seal into better engagement with corresponding sealing surfaces. However, Applicant has argued that the claimed orientation of the orifice is significant because it allows the fluid to press the seal radially outwardly and laterally against fluid components. Applicant has required the orifice to be parallel with surfaces of the seal plate to achieve this feature. Applicant has also argued a "wire test" to further illustrate this feature.

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Based on these arguments, the examiner submits that it is not so much that the orifice is parallel with the plate surfaces, but that the orifice is parallel to the surfaces against which the seal will act. This is supported by Applicant's 'wire test' example in that the wire will not intersect the line of abutment between the seal and fluid components.

Based on these arguments, specifically the 'wire test', the examiner acknowledges that some of the prior art would not result in the claimed invention. For example, Hinderliter and Patterson would fail the wire test. Even though these seals are oriented between two surfaces that are parallel, the orifice is not arranged parallel to these surfaces. However, the prior art does disclose and teach an orifice parallel to surfaces against which a seal acts (see examples, Jones, Johnson, Hahn, and Haggett). Each of these references teaches an orifice (parallel to sealing surfaces) that allows fluid to force a seal radially outward and then simultaneously laterally against both the fluid components (i.e. sealing surfaces). Each of these references would also pass the 'wire test' argued by Applicant.

The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In this case, Smith discloses a plate having a pair of surfaces parallel to each other (and parallel to the fluid component sealing surfaces). Jones teaches a seal between two surfaces wherein the inner ring has an orifice generally parallel to the sealing surfaces. More specifically, Jones teaches an orifice that allows fluid to force the seal radially outwardly and laterally into fluid sealing engagement with the

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fluid components (sealing surfaces). Therefore, the combination of Smith and Jones would result in an orifice parallel to the surfaces of the plate.

As mentioned in the phone call on 10/23/03 (which did not result in an agreement), claims 31 and 35 would be allowable if submitted in independent form.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alison K. Pickard whose telephone number is 703-305-0882. The examiner can normally be reached on M-F (9-6:30), with alternate Friday's off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on 703-308-3179. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-1113.



Alison K. Pickard
Examiner
Art Unit 3676

AP